

LEAN AEROSPACE INITIATIVE

Industry Future State and LAI Executive Panel

Presented by: Christopher Cool

LAI Executive Board Industry Co-Chair April 18, 2006



Caveat

- Industrial Enterprises is too big a scope to envision one future state other than PERFORM for the Shareholders
- I looked at the industrial complex of Defense and Aerospace but there are others we should consider in the context of LAI going forward;
 - Commercial Aerospace and Space
 - Bio Medical and Health
 - Financial
 - Electronics
 - Automotive (Toyota is still the place to learn and understand)



Industry Future State Bottom Line

Increased speed ...

In fighting a war In developing and fielding new capabilities In conducting business

Increased *flexibility*, in the face of ...

Internal Focus

A broad range of threats Uncertain budgets A transforming customer A transforming company

Customer Focus

Increased collaboration ... With customer community Across our companies

Across our supply chains



Industry Future State Focus.....

Performing for the Shareholders

- 1. Best Value Provider In Industry ("Value Creation")
- 2. Organic Growth
 - A. Market Expansion
 - **B.** Profitability
 - C. Discriminating Capabilities

Support of this and next QDR strategic direction

- 1. Transformation and Reducing Acquisition Timelines
- 2. Joint Forces

Rationalization and Scoping due to Budgetary variables

"Believe me: the crunch is coming. The budget crunch is coming, and it's not going to be pretty." General David Walker, US Comptroller General (and Blaise too!!)

Dealing with the reality of the brain drain and leadership

- 1. Executive and individual Leadership
- 2. Telecommuting/Flexible work schedules
- 3. Virtual Workplace
- 4. Generational Skill Mix
- 5. Knowledge and Capability



Maximizing our Performance/Efficiency

 Help us to see the money through processes

Integrating the various 'views' needed to manage our business:



- Provide us with tools to execute the thoughts increase the level of "saturation"
 - Help us to implement. Make VSM/EE part of Program Management or Systems Engineering 101.
 - Make this a leadership MUST HAVE

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Cust	Contracts & Pricing	Design/Eng	Planning	Supply Chain Mgmnt	Detail Manufacturing Planning Operations	Assembly Operations
Define Threats Define requirements	Requirements definition Scope development Bid development Negotiation/contract award	Specification definition Arrangement design Detail design Develop drawing and BOM Material Planning	Labor resource planning Capacity analysis Build strategy inancial work breakdown structure High and intermediate/WBA	Material acquisition Work release Stock management Receive material Store, kit, issue	BOM & Activity Perform IBrindy & WC definition Work center routing PBOM issue (demand) Issue work instructions Production Control Fabricate structural pieces, at metal, and electrical components Machine components Machine components Instructions	Production Control Erect and assemble nits/str\wcstugg systems Inspect and test Accept Delivery Contract
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Value Stream Management (\$\$\$

70% of the total cost to deliver on Product A 80% of the total labor cost to deliver Product B



- Help us to help customers, ourselves and the supply chain decipher the complexity and transform the industrial base enterprise
 - Keep facilitating Tools and Transformation Activities



Enterprise Transformation Complexity



- Maximizing our Performance/Efficiency
 - Help us to see the money through processes
- Provide us with tools to execute the thoughts increase the level of "saturation"
 - Help us to implement. Make VSM/EE part of Program Management or Systems Engineering 101. Keep research on value added topics
- Help us to help customers, ourselves and the supply chain transform the industrial complex
 - Keep facilitating Tools and transformation activities
- Developing our Human Capital and working the gap of the brain drain on our customers and ourselves
 - Collaborate & Research Solutions in other Industries
 - Enterprise leadership tools and principles

